ADDRESS

 \mathbf{OF}

PROF. A. D. BACHE,

BEFORE THE

ALUMNI ASSOCIATION

OF THE

CENTRAL HIGH SCHOOL.

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ADDRESS.

I have been requested, by the Alumni of the Central High School, to make some brief remarks before the delivery of the oration of the evening. I shall give, accordingly, a few historical notes, chiefly of the early days of the school, and express some views in regard to public education, which may not be without interest to you as parents and as citizens of one of the most intelligent and enlightened communities in our country.

When traveling in Europe in 1837 to procure information in regard to public education, and especially to eleemosynary institutions, for the Girard College for Orphans, I visited at Munich the great work-shops for astronomical instruments established there by Fraunhofer and continued at that date by Merz & Mahler. Mr. Merz inquired if I knew the Justice of the Philadelphia High School, who had ordered a large class equatorial telescope and other instruments for the observatory of the Institution. Here was truly a surprise: a new Institution had sprung up since my departure from home, and with a policy worthy of our city, an observatory had been established in connection with it, which was to be supplied with instruments of a high grade. The days of Rittenhouse, and Lukens, and Owen Biddle, were to be re-inaugurated in connection with the public schools. whom the worthy artist supposed to be some high functionary of the school was George M. Justice, one of the Committee of the High School, and the leader in this truly commendable enterprise. George M. Wharton, Thomas Dunlop, George M. Justice, Thomas G. Hollingsworth, Andrew Horton and Henry Leech, were the members of the High School Committee of the Board of Controllers to whom this useful Institution owes its organization. In 1838 an appropriate, though plain building, had been erected, facing South-east Penn Square, and the High School was under way under the guidance of its first excellent Board of Professors. The School was at first organized with independent departments, which arrangement seems to have failed to give satisfaction to the Controllers, as in 1839 I was invited to report a plan for its re-organization, and, with the hearty co-operation of the Professors, proceeded to put it in operation in November 1839. I had returned from a two years' tour in Europe, having diligently examined the institutions of education, and having thought unremittingly on the subject, and applied all the inductive processes within my mastery to the solution

of the various questions which presented themselves. While I was fully satisfied, that a mixed intellectual training derived from the classics and modern languages, mathematics, and the natural sciences, was the best for a long and continuous course of study. I had been as thoroughly eonvineed that education must not be fragmentary; but that a complete course, though inferior in the abstract, was better than a fragment of a more perfect one. I had especially studied the schools termed in Germany the higher burgher schools, real schools, and industrial schools, in which I found excellent training produced by the mother-tongue, history, the lower mathematies, and elementary natural science; a still better extending over a longer course of years by the same, combined with one or more of the modern languages, a more extended mathematical, and physical, and natural history course, and, above these, extending to thorough classical and scientific culture. I had carefully studied, also, the principles of moral and religious education, including discipline, and thought I saw that this was a point in which great improvement might be made.

The opening of the Girard College, from eauses entirely beyond my control, seemed to be indefinitely postponed, and longing to apply the principles which were thus working in my mind, I offered my services to the Controllers gratuitously, to carry out the principles of my report on the re-organization of the High School, which had met their approval.

I soon became satisfied that in this thorough change I should be supported, not only by the Committee of Controllers, who were pledged to it, and by the Professors of the School who approved of it, but by the pupils themselves, who seemed to throw themselves into the details of the experiment with much warmth and enthusiasm. The principal course of four years which contained the modern languages, mathematies and natural philosophy, natural science, history, English literature, moral and political science and the like, was taken by more than two-thirds of the pupils. A considerable number followed the classical course; and others, who expected to remain but two years, the English course. The necessary additional school rooms were provided, and a play ground, which was at once a source of high gratification to the pupils, the place for healthful recreation, and where the tempers and dispositions could best be seen and studied, as released from formal restraint.

How rise before me the forms of those who then filled the Professors' chairs! The charming classical mind of John Sanderson, so enthusiastic in the beauties of his author, so eloquent in expatiating, so varied in information, so gentle, so affable, a wit so keen, and yet a heart so relenting! He had been my own beloved preceptor in early years, and it was a source of intense gratification thus to have him offered the niche to which he was exactly fitted, and which had been his life-long search. The "American in Paris" would, I thought, have made an admirable instructor in French,

but his modesty forbade his entering upon instruction in a foreign language. The laborious, philosophical, analytical instruction in French of Professor Deloutte-how it rises with all its peculiarities before me now; and well do his old pupils around me remember him and it and those magical tables of white and red, covering the walls of his class room and from which he taught and lectured. These men are gone to their rest and we may speak freely of them. Shall I not also do the same of that venerable Doctor (McMurtrie) who, learned in his sciences, thought it no derogation to bring them down to uses of common life; whose kindness of heart carried away his pupils, removing the barrier which a sternness of manner sought to erect for discipline's sake. The quiet, classical, elegant turn given to his instruction by Professor Frost. The systematic and yet original and developing character of the teaching of Professor Wines; the ardent, enthusiastic, artist-like, philosophical aims of Rembrandt Pcale, who, the inventor of a new system, found here his first "large-scale" experimental field for its demonstration. The quiet, philosophical, thorough method of Professor Kendall; the patient, practical grounding of Professor Vogdes; the brilliant, scientific expositions of Professor Frazer; the systematic and practical chemical teaching of Professor Booth. I see these men as in the magic mirror of the past, and hear their teachings in the never-dying waves of the air, moved by their voices.

It was the early dawn of the School, but was already quite light.

The principles of many of the arrangements endure to this later hour of the School's history, the scale of the application being enlarged.

It was a favorite idea with me, that character could be moulded in an establishment like this by the kindly vigilance of the highest officer of the School, and the necessity for more painful discipline be thus avoided. The whole system of marks and reports which are used to this day, had that object. It was easy to see that in any class of boys a-third required merely the opportunity to learn, and the way to be shown, to follow of their own accord.

The opposite third required a close and constant supervision, stimulus, and often punishment. Between these were those who sometimes belonged to one and sometimes to the other class, and were to be dealt with accordingly. The great opportunities of education which these boys enjoy, and which their parents value, make the position of a scholar too valuable to be lightly thrown away, and bring parental influence to the support of the teacher in his efforts for the pupil. I must say for the boys who came under my control at that time, that they were, as a class, readily accessible to the influence of a kindly discipline and of friendly care, and that they were, as a body, always on the side of "law and order" and of improvement.

From these small beginnings the Institution has expanded to its present station, having more than four thousand boys of our city who have passed

through its halls, enjoying its benefits. I considered my own part as played out when the reorganization had proved successful, and left it in 1842 to other hands to guide it in its onward career more steadily and successfully than I could probably have done. The second period of reorganization dates from the election in 1842 of the late excellent Professor John S. Hart. I had remained long enough to see the first class which entered the School leave it with its honors, and to organize the Association of the Alumni, to whose recollection of that time I owe the invitation to introduce the orator of the evening, one of the distinguished pupils of those days.

This is not the time, nor am I the person to discuss the merits of the first or second regimen of the School, which has now passed under the able Principal (Nicholas H. McGuire,) recently elected to its third period, and, as we will hope, to a nearer approach even to the meridian hour of its history. It is for the men of the present time to consider whether this sun must stand still or rise still higher in the firmament. The idea that it has culminated cannot be entertained.

I have great confidence in the power of training to make, on the average, the kind of mind which it strives to make, if its strivings are by appropriate means. I expected to make a training school for teachers of the High School, and the first class, which passed through the full course in 1842, showed the practicability of this idea in their first choice of a profession.

As the High School was not intended to rival the colleges of the country, but in its principal course took a ground different from that which they occupied, so, as far as my influence went, I avoided resemblance to them in the forms of graduations and distinctions, and always felt reluctant to call things so dissimilar by like names. The motives of departing from this policy have no doubt been good and satisfactory, and yet I feel sure that many of the Alumni coincide with me in the wish that this principle had not been abandoned.

To the high school for boys, one for girls, or a seminary for female teachers, was a necessary supplement. I had recommended in 1840 a high school for girls, and a school for female teachers, but the plan had failed to conciliate the favor of the Controllers, until the wants of the grammar schools finally brought about, in due course of time, the establishment over which one of the ablest teachers of the district, Dr. Wright, was called to preside in 1848. The High School, when established, was in advance of public sentiment in regard to the elements of education, and as the Institution expanded, it remained so far in advance, as to cause those violent assaults which required all the strength of the cause and the vigor of its champions to resist. Of these attacks it may be said that had the School been less efficient, even though more economical, it could not so well have sustained them; and of the champions which the School found in the ranks of the Controllers and out of them, not one had cause to regret the part

which he took in the defence, but gained in character by the mode and result of the contest. The School had then two classes of opponents, the one who thought public education should not go beyond the elements, fearing to break it down by the expense attending higher institutions, and the other who, paying for the education of their children in private schools, did not choose again to be taxed for the education of the children of others. The fear that the expensiveness of public instruction may break it down is a mere chimera, as all experience in every part of the country proves; and with the general prevalence of public education the other trouble disappears.

There was one thought which used to haunt me at that time, and which now, in the midst of other and generally engrossing occupations, intrudes when circumstances turn my mind back to this old and much cherished career. It seems further from fulfilment now than ever then. Perhaps, therefore, I should set it down as among the impracticable ideas, generated by too much thinking upon one subject. Even to this day it does not seem to me so, and I therefore venture, before my old pupils, to speak of it. If there is nothing in it, it has as least the merit that it can do no harm. It would make of the Public Schools, the High School, the University, the Schools of Arts, one thorough and complete organization for public uses "for the greatest good to the greatest number."

It seems to me that public education is like one of those great pyramids of eastern work, broad at the base, and gradually and gracefully tapering to its vertex, the number of its recipients, like the number of stones, decreasing from the base. That it is, in the accommodations needed, like a great ocean from which you pass to a wide and capacious bay, thence into a mighty river, thence, mounting towards the source, to a stream. That public education, to be thoroughy useful, should be general, the broad base of the pyramid; the ocean, vast, unlimited, with room and verge enough for all. Circumstances determine that the numbers who frequent the grammar school shall be less than those who pass through the primary, and so onward; the pyramid narrowing, the bay contracting. I do not believe that private and public education can properly exist side by side, unless one or the other be merely as the exception which proves the rule.

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The High School should, by its English course, and in its lower classes, furnish all the demands for education of its grade in the city, and carry its pupils forward to the point where those, who must enter life, seek its occupations, and those who may yet linger longer in study, seek the University. Nor should those who have left the School be cut off from access to the higher classes of study, to follow them out in their evenings, systematically and under the guidance and direction of an instructor, instead of to delve for themselves, in order to become fully educated men. I still believe that if this were fairy and fully tried, it would have a great success, and that, if

University and High School were united in one common bond, a higher standard of education might be reached than your eity has yet seen generally diffused among its eitizens. I could point to some eases of individuals who would serve as types of the large elass whom I would have thoroughly cducated in the schools, instead of being left to struggle for self-culture at the thresholds of the occupations and professions which they have embraced. The higher grades of instruction in languages, in arts and seiences, in the technical arts, might thus be carried to a degree of perfection which our eountry has not yet seen, and which is more and more required as she advances in her career of national greatness. Philadelphia would, if all her means of instruction were organized in concert, without any new or great pecuniary outlay, become in education generally what she is now confessedly in instruction in the branches of medical seience—a leader among the rival eities of the nation—a place sought out for the advantages of sound elementary and higher learning, as now for the advantages of the professional schools.

I have only ventured upon these brief and yet desultory remarks to show to my former pupils and now friends, that neither in the turmoils of the life of struggle, nor in the absolute retirement of a surveying camp, between which my time is mainly divided, have I forgotten the times when we worked together, and that under all changes of circumstances I still acknowledge those ties which have bound and will ever bind us to each other.

Philadelphia, February 10th, 1859.